

### ARGUMENTS/REMARKS

Applicant would like to thank the examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe and claim the subject matter which applicants regard as the invention.

Claims 1–24 remain in this application. Claims 25–38 have been added without adding any new matter.

Claims 1–2 and 13–14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Malkemes *et al.* (WO 97/40584) in view of Igarashi *et al.* (U.S. 5,926,749) and further in view of Nguyen (U.S. 6,253,092). For the following reasons, the rejection is respectfully traversed.

The references do not teach the claim 1 step of “controlling a plurality of variable power amplifiers for variably amplifying the transmission signal modulated by the modulator.” Neither do the references teach the claim 13 element of “a plurality of variable power amplifiers for variably amplifying the transmission signal modulated by the modulator.” The Examiner has cited Igarashi as teaching this step and element, referring to Fig. 1, items 2, 3, 4, 6 and 8.

However, note that items 2 and 3 of Fig. 1 are not amplifying the signal modulated by the modulator, as recited in the claims. Only item 4 receives the modulated signal. Thus, the reference does not teach the cited claim elements. Applicant requests that the Examiner refer to Fig. 11 of the invention, where an example of the cited claim language is shown implemented by the combination of items 16, 25 and 18. Note particularly that sub-items 14 and 15 both receive the modulated signal. This is clearly not similar to the Igarashi teaching of Fig. 1. None of the other references overcome this Igarashi shortcoming, and thus, claims 1 and 13 are patentable over the references.

The references also fail to teach the claim 1 step of “controlling an adjustable digital-to-analog converter [DAC] for generating an analog baseband signal to be input to a modulator for frequency-converting a transmission signal to a signal in an IF band,” as well as the claim 13 limitation of having an “adjustable digital-to-analog converter for generating an analog transmission signal.” The Examiner cites Nguyen as teaching the cited claim elements, the Examiner stating that the “DAC sensitivity” is adjusted.

However, a close reading of Nguyen does not support the Examiner’s assertion. Nothing in Fig. 16 supports any teaching of an adjustable DAC. Furthermore, an analysis of Fig. 5 and the specification at col. 5, lines 24–47, make clear that it is not the DAC that is being adjusted. Instead, the reference teaches that the output of the *microprocessor 94* is being scaled by a scale factor ( $k_1$  or  $k_2$ ) in order to put the input

to the DAC into the proper region to provide the proper DAC sensitivity (see col. 5, lines 51–57). Note particularly that the  $P_{out}$  value output by the microprocessor is scaled by the scaling factor (using program 101 running on the microprocessor) for *input* to the DAC (see col 5, lines 33 and 46). There is no teaching that the DAC itself is variable. Instead, it is the input to the DAC that is varied, whereas the DAC itself is not (see col. 5, lines 55–56, where it is discussed that the method of the reference avoids the need of a DAC with higher resolution).

None of the other references overcome the Nguyen shortcomings, and thus claims 1 and 13 are patentable over the references for this reason as well. Claim 2, which depends on claim 1, and claim 14, which depends on claim 13, are thus patentable over the references for at least the same reasons as the parent claim.

Furthermore, claim 2 recites that “a control ratio of the variable power amplifiers is modified” and claim 14 recites that “the variable power amplification control unit modifies a control ratio of the variable power amplifiers.” The Examiner cites Malkemes as teaching these claim limitations, despite admitting that Malkemes does not teach the “plurality of variable amplifiers” of the parent claims. If the reference does not teach the elements of the parent claims, it can’t teach a control ration associated with those elements, either. Igarashi is also silent as to control ratios. Thus, claims 2 and 14 are patentable over the references for that reason as well.

Claims 7 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Malkemes in view of Fujita (EP 888,250 A2). For the following reasons, the rejection is respectfully traversed.

Claim 7 recites “controlling, using said plurality of voltage controllers, *a* power amplifier for amplifying a transmission signal via separate bias systems.” Claim 19 recites “a plurality of voltage controllers for controlling *the* power amplifier via separate bias systems.” The Examiner cites Fujita as teaching this limitation in Fig. 4, with items 7A and 26 representing the voltage controllers and items 24 and 25 representing the separate bias systems.

However, as argued above, it is clear from Figure 4 of Fujita that bias system 24 is connected to amplifier 3, whereas bias system 25 is connected to amplifier 5. Similarly, controller 7A is connected to amplifier 1, whereas controller 26, although not connected to any amplifier, is connected to items 24 and 25, which are connected to amplifiers 3 and 4, respectively. Note particularly that there is no amplifier being controlled by a *plurality* of controllers, in contrast to the example shown in Fig. 11 of the application by items 13, 19 and 20, which show a single amplifier (13) controlled by two voltage controllers (19, 20). This is supported by the claim language which clearly specifies that at least one amplifier have *multiple* controllers, which is *not* suggested by any of the references. Hence, the references do not teach the cited claim limitations, and thus claims 7 and 19 are patentable over the references.

Claims 3, 5–6, 8–9, 11–12, 15, 17–18, 20–21 and 23–24 were rejected under 35 U.S.C. §103(a) as

being unpatentable over Malkemes in view of Igarashi, further in view of Nguyen and Fujita. Claims 4, 10, 16 and 22 are rejected as above in further view of Davidovici (U.S. 5,963,583). For the following reasons, the rejection is respectfully traversed.

Davidovici does not overcome any of the shortcomings of the other references discussed above. Hence, claims 3-6, 8-12, 15-17-18, 20-24, each depend on one of claims 1, 13, 7 or 19, and thus are patentable over the references for at least the reasons of their parent claims.

Finally, new claims 25-38 incorporate one or more of the features discussed above, and thus are patentable for at least the reasons given in the respective arguments, above.

Furthermore, the Examiner has failed to provide the proper motivation for combining the references. The Examiner states, for example, that the motivation for modifying Melkemes using Igarashi is to "provide an amplifier circuit suitable for a transmitter, which is capable of realizing a large dynamic range in a simple configuration." However, this is not a proper motivation, as it is merely a generalized benefit that could support many different solutions.

The Examiner must provide a motivation for modifying the primary reference. Merely listing an advantage found in the secondary reference is not legally sufficient motivation, because this would make *any* secondary reference self-motivating for *any* primary reference, because every reference teaches some advantage that the Examiner could then cite. To make this legally sufficient motivation would mean that no new combinations of known features would be patentable, and this is clearly not the law.

To support a *prima facie* case of obviousness, the Examiner must show that there is some *suggestion* or *motivation* to specifically modify the reference (MPEP §2143.01). The mere fact that references *can* be combined or modified, alone, is not sufficient to establish *prima facie* obviousness (*Id.*). The prior art must also suggest the *desirability* of the specific combination (*Id.*). The fact that the claimed invention is within the *capabilities* of one of ordinary skill in the art is not sufficient, by itself, to establish *prima facie* obviousness (*Id.*).

The motivations provided for the various other rejections are similarly deficient. Accordingly, the rejections for obviousness is not proper, and should be withdrawn.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

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If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 33677.

Respectfully submitted,

PEARNE & GORDON, LLP

By: 

Robert F. Bodi, Reg. No. 48540

1801 East 9<sup>th</sup> Street  
Suite 1200  
Cleveland, Ohio 44114-3108  
(216) 579-1700

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